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10/018,144	04/11/2002	Bjorn Liedtke	AZ.3012	7044

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Robert W Becker & Associates
Suite B
707 Highway 66 East
Tijeras, NM 87059

EXAMINER

PURVIS, SUE A

ART UNIT	PAPER NUMBER
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1734

DATE MAILED: 09/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,144

Applicant(s)

LIEDTKE ET AL.

Examiner

Sue A. Purvis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 32-62 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 32-62 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Interpretation

1. Applicant's use of 'relative movement' in claims 32 and 51 has been interpreted based on the disclosure page 5, lines 17-24. The disclosure states that it is the roller, the substrate, or both the roller and the substrate that must move in order to create the 'relative movement'. Claim 41 includes the step of the substrate moving 'linearly' past the pressure roller. There is no indication when this movement occurs and the term 'linearly' interpreted broadly can indicate the substrate moves along a line, whether it be straight, diagonal, or curved.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 32-35, 37, 38, 40, 41, 43, 44, 46, 48, 50-56, 59, 60, and 62 are rejected under 35 U.S.C. 102(e) as being anticipated by Amo (US Patent No. 6,200,402 B1).

Amo discloses a method and apparatus for laminating disc-shaped substrates. The process includes providing a first substrate (D1) and pressing an adhesive film (S2, S3) onto the substrate via a pressing roller (1), the pressing roller (1) moves relative to the substrate (D1).

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Next a second substrate (D2) is aligned relative to the first substrate (D1) and the two substrates are joined. (See Figures 2-7, 16, and 17.)

Regarding claim 33, peeler (4) causes the adhesive film to withdraw from the carrier film (S1). (See Figures 8 and 9.)

Regarding claim 34, a protective film (L) is withdrawn from the adhesive film (S2, S3) before it is applied to the substrate (D1). (See Figure 1.)

Regarding claims 35, as can be seen in Figure 20(A), the adhesive film (S2, S3) corresponds to the shape of the substrates.

Regarding claims 37, 38, and 54, the film is applied in a center manner to the substrate by means of a centering shaft (3). The shaft (3) aligns the adhesive prior to the step of pressing the adhesive thereon. (See Figure 3.)

Regarding claim 40, the adhesive film is held above the substrate (D1) prior to the step of pressing the film thereon. (See Figures 10(A) and 10(B).)

Regarding claims 41 and 55, once the film is applied to the substrate, the substrate is moved passed the roller 'linearly'.

Regarding claims 43, 44, 46, and 56, Figure 16 shows a centering and holding device for aligning the substrates where the second substrate (D2) is held apart from the first substrate (D1) before it is pressed thereon.

Regarding claim 48, pressing the substrates together results in an adhesive bond between the two.

Regarding claims 50 and 62, a single layer of adhesive film is used.

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Regarding claims 52 and 53, these claims fail to add any structural limitations to the apparatus claim because they deal with the material worked upon. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "inclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 966, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). (See MPEP §2115.)

Regarding claims 59 and 60, pressing bodies is shown in Figures 16 and 17. No actuating device is disclosed, but it is inherent that an actuating device exists to achieve the movement shown in the Figures.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amo as applied to claims 32, 33, and 35 above, and further in view of Deurer et al. (US Patent No. 5,891,290).

Amo discloses the adhesive film with the corresponding size and shape of the substrate but does not disclose how that film was created.

Deurer discloses placing or 'punching' sections (10) cut out from one film (20) onto a carrier film (21).

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It would have been obvious to one having ordinary skill in the art at the time the invention was made to place the adhesive film in Amo onto the carrier means by a means similar to that in Deurer, because the embodiment in Deurer is well known in the art. Furthermore, it is within the purview of the artisan to look to a reference like Deurer to determine how the film in Amo is created.

6. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amo.

Amo discloses a laminating roller (1) for pressing the adhesive film onto the substrate body, but does not discuss how much pressure is applied in this step or a means for controlling the amount of pressure used.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to control the pressure applied by the laminating roll in Amo, because it is within the purview of the artisan to add a control feature to prevent possible damage that too pressure can cause. Alternatively, if too little pressure is applied, then the film is not applied properly to the substrate and a defective product is created.

7. Claims 45, 57, 58, and 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amo as applied to claim 32 above, and further in view of Nakamura et al. (US Patent No. 6,004,420).

Amo does not disclose if the substrates are pressed together in a vacuum or not.

Nakamura discloses the prior art apparatus in Figure 16 where the two disk substrates (46) are bonded to each other by first bonding the first disk substrate (46) to the adhesive double coated sheet (51) by means of vacuum pressing; then separating a release film (53) by the release film gripping mechanism (49) and inverting the first disk substrate. Then the second disk

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substrate (46) is bonded, by means of vacuum pressing, to the first disk substrate (46) with the adhesive double coated sheet (51) stuck thereto. (Col. 1, lines 31-50.)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include a vacuum in the bonding step in Amo, because Nakamura shows that it is well known in the art to bond substrates together in a vacuum. Furthermore, an artisan would know that a vacuum condition would prevent contaminants from interfering with the bonding process.

Regarding claim 58, the prior art in Nakamura discloses a vacuum presser (48) with a hood, base, and a support.

8. Claims 47 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Amo.

Amo does not discuss how much pressure is exerted with the two steps are bonded together or a method of controlling the pressure.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to control the pressure applied by the press (100) in Amo, because it is within the purview of the artisan to add a control feature to prevent possible damage that too pressure can cause. Alternatively, if too little pressure is applied, then the two substrates would not be bonded together properly and a defective product is created.

Regarding claim 49, Amo does not state that the adhesive film is 'hardened', however it is within the purview of the artisan to know that the final result desired in Amo is that the adhesive film be hardened, because a permanent bond results between the substrates in Amo and this cannot be achieved if the adhesive film is 'soft'.

9. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amo.

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Amo does not disclose using compressed air at the bonding station.

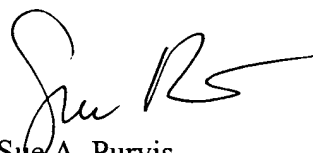
It would have been obvious to one having ordinary skill in the art at the time the invention was made to include compressed air in the bonding station to assist in the bonding process, because using compressed air could speed up the bonding process and has less chance of harming the substrates than the pressure the pressure ram would place on it.

Conclusion

10. -- Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sue A. Purvis whose telephone number is 703-305-0507. The examiner can normally be reached on Monday through Friday 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rick Crispino can be reached on 703-308-3853. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-1495.



Sue A. Purvis
Examiner
Art Unit 1734

sp
September 17, 2003